

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification 5 :</b>  A61K 31/70, 9/08	<b>A1</b>	<b>(11) International Publication Number:</b> WO 91/18610 <b>(43) International Publication Date:</b> 12 December 1991 (12.12.91)
<b>(21) International Application Number:</b> PCT/SE91/00376 <b>(22) International Filing Date:</b> 28 May 1991 (28.05.91)  <b>(30) Priority data:</b> 9001906-8                      28 May 1990 (28.05.90)                      SE  <b>(71) Applicant (for all designated States except US):</b> OLLE LJUNGQVIST MEDICAL AB [SE/SE]; Alviksvägen 227, S-161 39 Bromma (SE). <b>(72) Inventor; and</b> <b>(75) Inventor/Applicant (for US only):</b> LJUNGQVIST, Olle [SE/SE]; Alviksvägen 227, S-161 39 Bromma (SE).  <b>(74) Agents:</b> FOGELBERG, Lennart et al.; Stenhagen Patentbyrå AB, P.O. Box 17709, S-118 93 Stockholm (SE).		<b>(81) Designated States:</b> AT (European patent), AU, BE (European patent), CA, CH (European patent), DE (European patent), DK (European patent), ES (European patent), FI, FR (European patent), GB (European patent), GR (European patent), IT (European patent), JP, LU (European patent), NL (European patent), NO, SE (European patent), US.  <b>Published</b> <i>With international search report.</i>
<b>(54) Title:</b> NEW USE OF GLUCOSE AND A NEW SOLUTION OF GLUCOSE.  <b>(57) Abstract</b>  Glucose, fructose and/or xylose are suggested to be used for the preparation of an infusion solution intended for preoperative administration. An infusion solution is disclosed, which in addition to glucose, fructose and/or xylose and potassium chloride also contains glutamine and/or ornithine-alfa-ketoglutarate or the corresponding glutamine analogues which are transformed into glutamine in the body and possibly one or more hormones. Furthermore, a method is disclosed for suppressing the negative influence of an operation on patient carbohydrate metabolism after surgery and improving the defence capacity of the patient on bleeding in connection with or after the operation which method comprises preoperative intravenous administration to the patient of an infusion solution containing at least one carbohydrate selected from the group consisting of glucose, fructose and xylose.		

C L A I M S

1. The use of at least one carbohydrate selected from the group consisting of glucose, fructose and xylose, preferably glucose, for the preparation of an infusion solution intended for preoperative administration in order to suppress the negative influence of the operation upon the carbohydrate metabolism and to improve the defence capacity of the patient in case of bleeding in connection with or after the operation.
2. Use according to claim 1, characterized in that the infusion solution also contains potassium chloride.
3. Use according to claim 1 and/or 2, characterized in that the infusion solution in addition to glucose also contains at least one of the substances fructose and xylose.
4. Use according to one or more of claims 1 - 3, characterized in that the infusion solution also contains glutamine and/or ornithine-alfa-ketoglutarate or corresponding glutamine analogues which are transformed into glutamine in the body.
5. Use according to one or more of claims 1 - 4, characterized in that the infusion solution also contains one or more hormones, preferably an insulin or insulin derivative suitable for administration to man.
6. Infusion solution for preoperative administration, characterized in that it consists of an aqueous solution of at least one carbohydrate selected from the group consisting of glucose, fructose and xylose, preferably glucose, and potassium chloride together with glutamine and/or ornithine-alfa-ketoglutarate or the corresponding glutamine analogues which are transformed into glutamine in the body and possibly one or more hormones.

7. Infusion solution according to claim 6, characterized in that the content of glutamine and/or ornithine- $\alpha$ -ketoglutarate or corresponding glutamine analogues which are transformed into glutamine in the body of the solution is 5-30 g/l, preferably 10-20 g/l.

8. Method for suppressing the negative influence of an operation on a patient carbohydrate metabolism after surgery and improving the defence capacity of the patient on bleeding in connection with or after the operation, which method comprises preoperative intravenous administration to the patient of an infusion solution containing at least one carbohydrate selected from the group consisting of glucose, fructose and xylose, preferably glucose.